



Joseph C. Sullivan, Mayor



*****ECRWSS*****

Local
Postal Customer

Braintree Water & Sewer 2010 Water Quality Report

Distributed May 2011

Dear Fellow Citizens,

This is the annual report from the Town of Braintree Water and Sewer Department to all water users. It is required by law and I am happy to state that, "Braintree's water quality is excellent and better than any bottled water available anywhere."

As usual this is due to the expertise and professionalism of our managers and employees who work 24 hours every day to deliver a great product to you year round. The specific laboratory results and water analysis is noted for your review.

As we continue on our project to improve our roadways we take the opportunity to upgrade several systems under the streets. The water distribution pipes are primary. Work also includes repairs to the wastewater (sewer) system and the storm-water drainage systems. We are making faster progress than anticipated and look forward to reaching our "One hundred street" goal.

We are making plans for a technical upgrade of our aging water treatment plant on Great Pond. The present facility is satisfactory for today but its lifespan is very limited. To avoid a crisis we be proactive and add new filtration and treatment systems before they are forced upon us at high emergency cost.

Presently, we have the ability to draw water from the MWRA or neighboring towns if needed. This would only be done under the most extreme circumstances. Funds invested now will pay for themselves hundreds of times over in the future.

Over the last few years we have replaced old water tanks across town. You can recognize them by the newer paint. One day's supply of water is stored in them and their height gives us adequate water pressure for firefighting. Recently, we have reinvested about \$5,000,000 in infrastructure repairs and replacement. This mostly came from Water Department receipts rather than taxes. All well spent.

Lastly, I want to thank the loyal employees and managers of the Water and Sewer Department for their work this year. They have delivered water that is not only adequate but is outstanding. Be it making decisions, determining quality, billing, customer contact or actually getting into the trenches in the dark of night or cold of winter... these are excellent public employees who make all of us proud. They have my respect and admiration.

Joseph Sullivan, Mayor

Braintree water bills paid
before the due date get a
\$5.00 discount.
(*"before is before"*)



Braintree water quality is
better than supermarket
bottled water.



Please... don't put dental floss in
the toilet. It clogs our wastewater
pumps!

This brochure explains how drinking water provided by Braintree Water & Sewer is of the highest quality. Included is a listing of results from water-quality tests as well as an explanation of where our water comes from and tips on how to interpret the data. This "Consumer Confidence Report" is required by law. We're proud to share our results with you. Please read them carefully.

For More Information:

Any questions or comments on Water Quality issues can be directed to the contact listed below:

Braintree DPW, Water and Sewer Division
PWS ID# 4040000

90 Pond Street
Braintree, MA 02184
781.843.8097
fax 781.843.8285

Thomas Whalen, Director of Public Works or

Lou Dutton, Water Works Superintendent
781.843.9205

Also visit our new website located at:
www.braintreema.gov

New England Water Works Association (NEWWA)
508.893.9898

EPA/CDC Safe Drinking Water Hotline
800.426.4791 www.safewater.com

OVERVIEW

Water Source — Braintree Water & Sewer's water is supplied by the Great Pond Reservoir System which is surface water. Water enters the reservoirs via the Farm River which is diverted into the Richardi Reservoir. When the Upper and Lower Ponds become low water is pumped from the Richardi to supplement our supply. Water from the Narroway Brook feeds into the Upper Reservoir and flows by gravity into the Lower Reservoir where it then enters our Treatment Plant. In the event of an emergency we have the ability to receive water from Quincy, Weymouth, Holbrook, Randolph and the MWRA. PWS ID# 4040000

How Do I Read This Chart? This report is based upon tests conducted in the year 2010 by Braintree Water & Sewer. Terms used in the Water-Quality Table and in other parts of this report are defined here.

IMPORTANT DEFINITIONS

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirement that a water system must follow.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water. The data presented in this report is from the most recent testing done in accordance with regulations.



To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds & reservoirs. As water travels over the surface of the land

or through the ground, it dissolves naturally-occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage/septic systems, agricultural/livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas storage or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff and septic systems.

(E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities. In order to ensure

that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can

be particularly at risk from infections. These people should seek advice about drinking water from their health-care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the

Safe Drinking Water Hotline
(800-426-4791).

Required Additional Health Information

2010 WATER QUALITY TESTING RESULTS

Contaminants	Date Tested	Unit	MCL	MCLG	SMCL	Detected Level	Range	Major Sources	Violation
Contaminant Inorganic									
Barium	2010	mg/l	2	<2		0.0150	0-0.0150	Industrial/wastewater discharge	NO
Sodium	2010	mg/l	N/A	N/A		40.1	0 – 40.1	Chemicals used for highway snow and ice removal	NO
Flouride		Mg/L	4.0	<2.0	2.0	0.055	0-0.055	Naturally present in water	NO
Volatile Organic Contaminants									
Chloroform	2010	Ug/L	N/A	N/A		5.8	0.50- 5.8	Erosion of natural deposits	NO
Bromodichloromethane	2010	Ug/L	N/A	N/A		8.8	0.50 – 8.8	Erosion of natural deposits	NO
Chlorodibromomethane	2010	Ug/L	N/A	N/A		5.5	0.50 – 5.5	Decay of natural and man-made deposits	NO
Disinfectants and Disinfection Byproducts									
Trihalomethanes	2010	Ug/L	80	<80		63.8	22.8–73.0	Disinfection byproduct	NO
Haloacetic Acids	2010	Ug/L	60	<60		4.6	2.0 –14.4	Disinfection byproduct	NO
Secondary Contaminants									
Total Dissolved Solids	2010	mg/l	N/A	<500	500	170	5-170	Naturally present in water	NO
PH	2010	N/A	N/A	>7.0	6.5-8.5	7.2	7.0-7.7	Naturally present in water	NO
Alkalinity	2010	mg/l	N/A	N/A	N/A	20.5	1-20.5	Naturally present in water	NO
Chloride	2010	mg/l	N/A	<250	250	74.8	0.518-74.8	Disinfection byproduct	NO
Hardness	2010	mg/l	N/A	N/A	N/A	38.3	0.20-38.3	Naturally present in water	NO
Calcium	2010	mg/l	N/A	N/A	N/A	11.0	0.04-11.0	Naturally present in water	NO
Magnesium	2010	mg/l	N/A	N/A	N/A	2.63	0.03-2.63	Naturally present in water	NO
Potassium	2010	mg/l	N/A	N/A	N/A	1.83	2.00-1.83	Residual from water treatment	NO
Odor	2010	T.O.N.	N/A	<3	3	1	0-1	Decay of natural and man-made deposits	NO
Sulfate	2010	Mg/L	N/A	<250	250	14.1	0-14.1	Decay of natural and man-made deposits	NO
Manganese	2010	mg/l	N/A	<0.05	0.05	0.0150	0.001-0.015	Decay of natural and man-made deposits	NO
Lead & Copper Rule									
Lead	2010	ppb	15	<15		5*	0.001-0.135	Corrosion in household plumbing	NO
Copper	2010	mg/l	1.30	<1.30		0.098*	0.014-0.126	Corrosion in household plumbing	NO
Turbidity Data									
Turbidity	2010	NTU	0.30	<0.30		0.105	0.05-0.105	Soil Runoff	NO
Misc.									
Nitrates	2010	mg/L	10	<10		0.106	0-0.0.106	Decay of natural and man-made deposits	NO
Total Organic Carbon	2010	mg/l	1.00	>1.00		1.05**	1.00-1.23	Decay of natural and man-made deposits	NO
Chlorine Residual	2010	mg/l	4.00	<4.00		1.40	0.78-1.50	Disinfection Chemical	NO
Bacteria									
Total Coliform	2010		0	0		0	0	Naturally present in water	NO

There is a good and there is a better time to do you laundry. When there is a heavy rain and for a few hours after, the wastewater system gets near capacity. If you avoid times of heavy rain or a few hours afterwards, you are helping Braintree's wastewater system to deal with excess fluid. Thank you for NOT adding to the problem. Thank you for be selective as to WHEN you do your laundry.

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Town of Braintree is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>."

Water-Quality Table Footnotes

1 Natural occurring chemical.
 2 Natural occurring substance.
 * Result based on 90th percentile as specified by the Department of Environmental Protection. One Sample was above the Action Level (0.135)
 ** Result based on Treatment Technique as specified by the Department of Environmental Protection

Although we ran many tests, only the listed substances were found.

Explanation of Violations

The Town of Braintree had no violations in 2010.

Key To Table

AL = Action Level	pci/l = picocuries per liter (a measure of radioactivity)
MCL = Maximum Contaminant Level	ppm = parts per million, or milligrams per liter (mg/l)
MCLG = Maximum Contaminant Level Goal	ppb = parts per billion, or micrograms per liter (µg/l)
MFL = million fibers per liter	ppt = parts per trillion, or nanograms per liter
mrem/year = millirems per year (a measure of radiation absorbed by the body)	ppq = parts per quadrillion, or picograms per liter
	TT = Treatment Technique

Braintree Water & Sewer's drinking water meets or surpasses all federal and state drinking-water standards.

GREASE POLICE!™



WRONG

**Don't pour fats, oils or grease down the sink or into the toilet.
They will clog the wastewater system.**

**Instead, pour them into a separate container such as a coffee can.
This may then be put out with the regular trash.**

This is a serious problem.

To keep effluent traveling on its way, Braintree has several pumping stations which move the wastewater. When these pumps are clogged by fats, oils or grease, toilets and sinks backup in the neighborhood. This makes a very offensive and disagreeable mess. It can present a serious health hazard and substantial personal loss.

Even the small amount of grease generated by the average family is a major problem.

Take the "Grease Police" seriously. Save the Town of Braintree Millions in wastewater repairs and replacement. Please put your fats, oils and grease in the trash – not the wastewater.



RIGHT

Town of Braintree Department of Public Works. Thomas Whalen, Director of Public Works
Louis Dutton, Water Works Superintendent